

EV JA

Memorandum

842776

Vancouver, B. C.
1981-08-27

QUEEN CHARLOTTE PROGRESS REPORT
(Security Project - M486)

EARL D. DODSON:

Concern was expressed earlier in the year with respect to the diffuse nature of the possible drill targets on the Security property.

I am pleased to report that, as expected, a number of clear targets are developing as the data is plotted up. Four major zones have been outlined, as well as several lesser ones which will require further work prior to consideration for drilling. A summary of these zones is attached.

From the first phase of test pitting, one pit showed an increase in Au from surface to depth as follows:

| | | |
|------|--------|------------|
| BP#3 | 0 cm | 80 ppb Au |
| | 15 cm | 100 ppb Au |
| | 60 cm | 60 ppb Au |
| | 150 cm | 180 ppb Au |

A remaining 4 pits of the first phase gave ambiguous results. It should be noted, however, that 2 of these were in non-anomalous areas.

A second phase of 5 pits has now been completed, but not sampled. The blaster reports pyrite, arsenopyrite, and minor base metal mineralization in 2 of them, and which was not evident, except for minor rusting, at the surface.

At this point we can say that leaching of sulphides is established, but that the leaching of gold remains uncertain.

I still feel strongly that, even if further evidence of leaching is not forthcoming, drilling of the major zones is highly desirable.

DA.

D. ARSCOTT

DA:am

SECURITY PROPERTY - M486
SUMMARY OF ANOMALOUS ZONES

OUT
OF
DATE

| <u>Zone</u> | <u>Area</u> | <u>Character</u> |
|-------------|--|--|
| AI - BI | A grid 0 to 3E 2 to 7S adjoining B grid 7 to 10E 19 to 28S | Overall anomalous zone 1100 m x 300 m, with Au to 360 ppb, As to 1200 ppm, and Cu to 1600 ppm. Underlain by widespread quartz veining including one vein 200+ m x 4 m in altered andesitic basalt. |
| BIII | B grid 13 to 16W 2 to 6N | Anomalous zone is 400 m x 150 m, with Au to 900 ppb and As to 1100 ppm. It is underlain by intensely quartz veined rhyolite and silicified andesite. It is also cut by one major quartz vein which outcrops over 600 m and is up to 4 m wide. |
| BII | B grid 0 to 4W 7 to 11S | Anomalous zone is 400 m x 250 m, with Au to 130 ppb and As to 300 ppm, in altered andesitic basalt. |
| CI | C grid 6 to 14W 4N to 5S | Open ended anomalous zone 600 m x 800 m with (widespread) As to 1200 ppm, (isolated) Au to 1140 ppb, widespread tourmaline - quartz alteration, and peripheral Cu to 300 ppm. The host is andesitic basalt with abundant quartz-porphyry dyking. |
| CII | C grid 0W/1 to 6S | An open ended anomaly (which may be bridged into CI) attains a maximum of 800 ppm As and 40 ppb Au over an area of 500 m x 100 m+. |
| BVI | Shoreline E of Baylee Bay and B grid 30W 8S | A diffuse grouping of analyses and assays could be indicative of a large Cu zone in andesitic basalts. Five rock grab samples range from 0.37 to 12.3% Cu, and one soil has 3200 ppm. |
| BIV | B grid 12W 3S | An open, single line anomaly attains 300 ppm As and 610 ppm Cu |
| BV | B grid 5E 11S | A point anomaly (110 ppb Au, 200 ppm As) is open in 2 directions. |

Memorandum

Vancouver, B. C.
1982-08-06

RE: APPROPRIATION OF FUNDS FOR DRILLING
SECURITY AND KING PROJECTS

EARL D. DODSON:

Exploration in 1982 in the Queen Charlotte Islands has outlined two areas that warrant diamond drilling this year. One area is the Security project and the other is the King project. Drilling should be completed on both projects so a decision can be made on whether to continue or not.

Security Project

The project is located on the west coast of the Queen Charlotte Islands, 40 km west of Sandspit (Fig. 1).

Detailed geological mapping combined with soil and rock sampling (Fig. 2) have defined two quartz vein systems that both carry gold values (from 50 ppb to .516 oz/ton). The two vein systems are shown in detail on Fig. 3 and 4. The main vein system shown on Fig. 3 is 1000 meters in length and varies in width from 2 to 15 meters. It has been highly dissected by cross and parallel faults. Previous sampling produced spotty gold values, however the detailed work in 1982 which includes channel sampling has turned up many more significant values that are located towards the fringe of the vein system (Fig. 3). The vein system is made up of a vein breccia, massive quartz and a quartz stockwork cutting across Triassic Karmutsen pillow and massive basalts and Tertiary rhyolite dykes. The massive quartz and vein breccia (consisting of small fragments of country rock) are more prevalent in the basalt while the stockwork and vein breccia are more prevalent in the rhyolite.

Fig. 4 outlines the second vein system that cuts a sequence of Tertiary rhyolite flows and a gabbro stock plus the Triassic Karmutsen pillow basalt. The vein system is not completely defined but is 600 meters long and 10 - 15 meters wide. Excellent chalcedonic quartz, massive quartz and quartz vein breccia is present in the vein. To date the geochemical results are encouraging (varying from 20 ppb to >10000 ppb) and clearly indicate there is gold in the system.

There is potential in these veins for a high grade gold deposit. Gold is known to be very mobile in the presence of chlorine ions. The proximity of this property to the sea and the presence of chlorine ions in the spray suggests there could be surface leaching of gold. The depth to which the gold will be leached is still not clear, however trenches up to 3 meters deep on the vein system have still had rusty bedrock and a lot of fracturing suggesting the leaching could be quite deep. The result could easily be very spotty values on surface.

The only method of testing the surface leaching hypothesis is to try a series of short diamond drill holes to determine what kind of gold values occur in the vein system. The objective would be to intersect the vein approximately 100' and 200' below the surface. At present four holes have been outlined on Fig. 3. Once all of the results have been returned for the area shown in Fig. 4 we expect to outline two further sites. The total footage will be 2000'.

King Project

The project is located on the northern island of the Queen Charlotte Islands, 55 km northwest of Sandspit (Fig. 1).

Geological and geochemical compilation, relogging of the diamond drill core and some fill-in soil sampling (Fig. 5) indicate a target area that warrants a diamond drilling program.

The geochemical compilation shows there is a strong arsenic response over the Cretaceous Honna conglomerate. The mercury response is extremely high and also appears to originate in the conglomerate. A detailed map (Fig. 6) of the conglomerate area shows the arsenic response both in soil and in rock. It also clearly indicates that the earlier (1980 and 1981) diamond drill holes were just up slope from the arsenic anomalies. Little gold was found in the diamond drill holes however a good arsenic and mercury response was obtained at the base of the conglomerate. Relogging of the core outlined a strongly bleached and altered zone at the bottom of holes 1, 2 and 3. This alteration was considerably larger in hole 1 than in holes 2 and 3 and it corresponded exactly with the strong arsenic and mercury response (Fig. 7). These data strongly suggest the cause of the anomaly may actually be east of hole 1 and closer to the two faults (Fig. 6) where there are a number of feldspar porphyry dykes. This geological setting is quite reminiscent of the geological setting at Cinola.

This geological setting warrants 2 to 3 diamond drill holes in the area of the faults to determine if the alteration has increased and if there is a possibility of gold mineralization near the center of the strong arsenic anomaly. Unlike the Cinola deposit which has shale in the footwall side of the fault effectively sealing the deposit, there is potential at King on either side of the fault or even straddling the fault.

A total of 3000 feet of diamond drilling is being recommended on these two projects. The total proposed cost for both projects is attached.



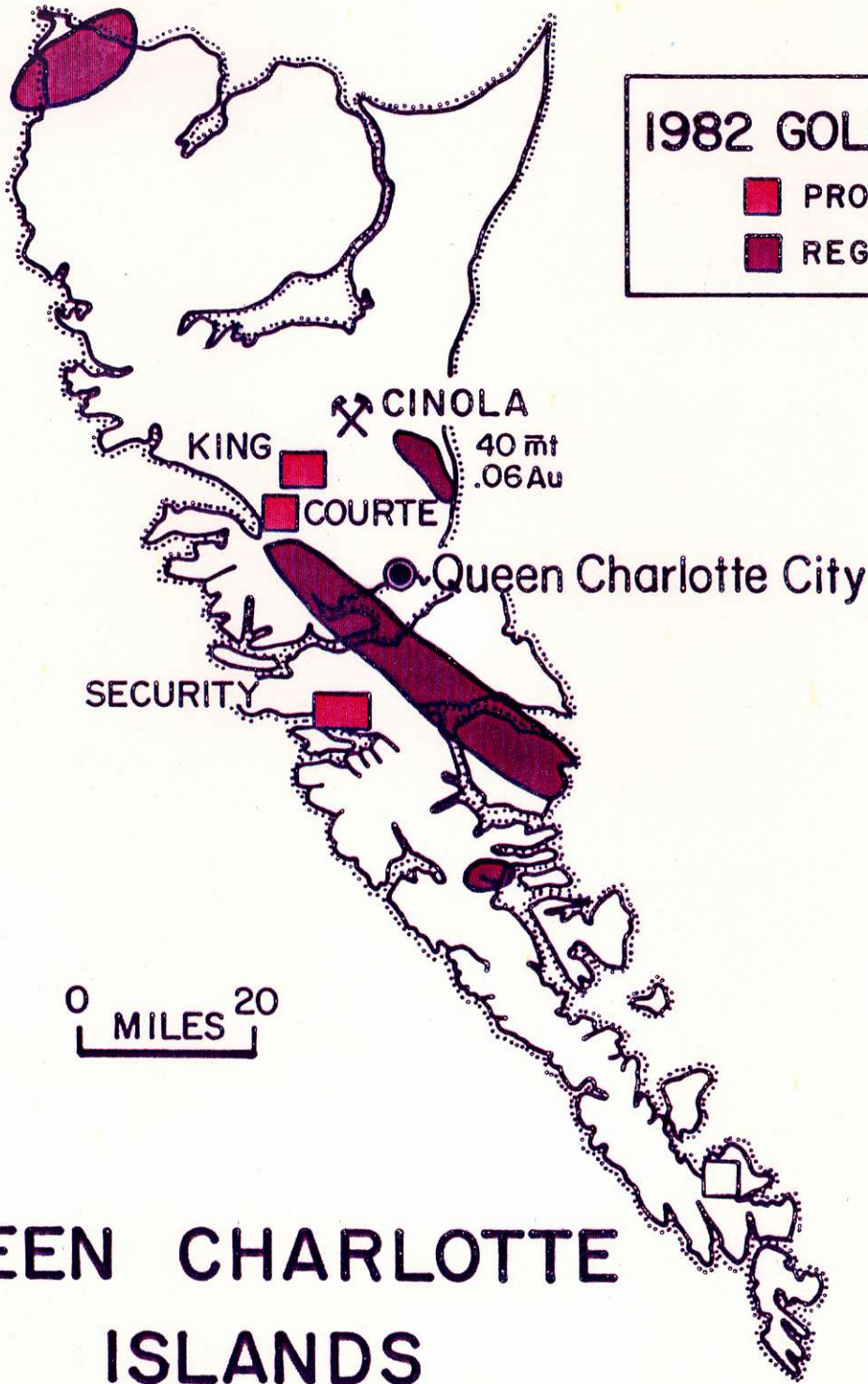
GODFREY WALTON

GW:am
Attachs.

BUDGET

DIAMOND DRILLING

| | | |
|-----------------|--|---------------------|
| Footage | 3000' @\$21./ft. | \$ 63,000.00 |
| Food | 7 men x 30 days x \$15.00 | 3,200.00 |
| Assay | 15 x 500 | 7,500.00 |
| Shipping | | 1,000.00 |
| Fuel | diesel (16 barrels) | 4,500.00 |
| Helicopter | (28) x 20 hrs, 7 hrs (move) x 5, + 15 hrs x 470 | 33,000.00 |
| Mob/Demob. | | 10,000.00 |
| Field cost, mud | | <u>25,000.00</u> |
| | | \$147,200.00 |
| | Contingency | <u>13,800.00</u> |
| | | <u>\$161,000.00</u> |



QUEEN CHARLOTTE ISLANDS

SECURITY

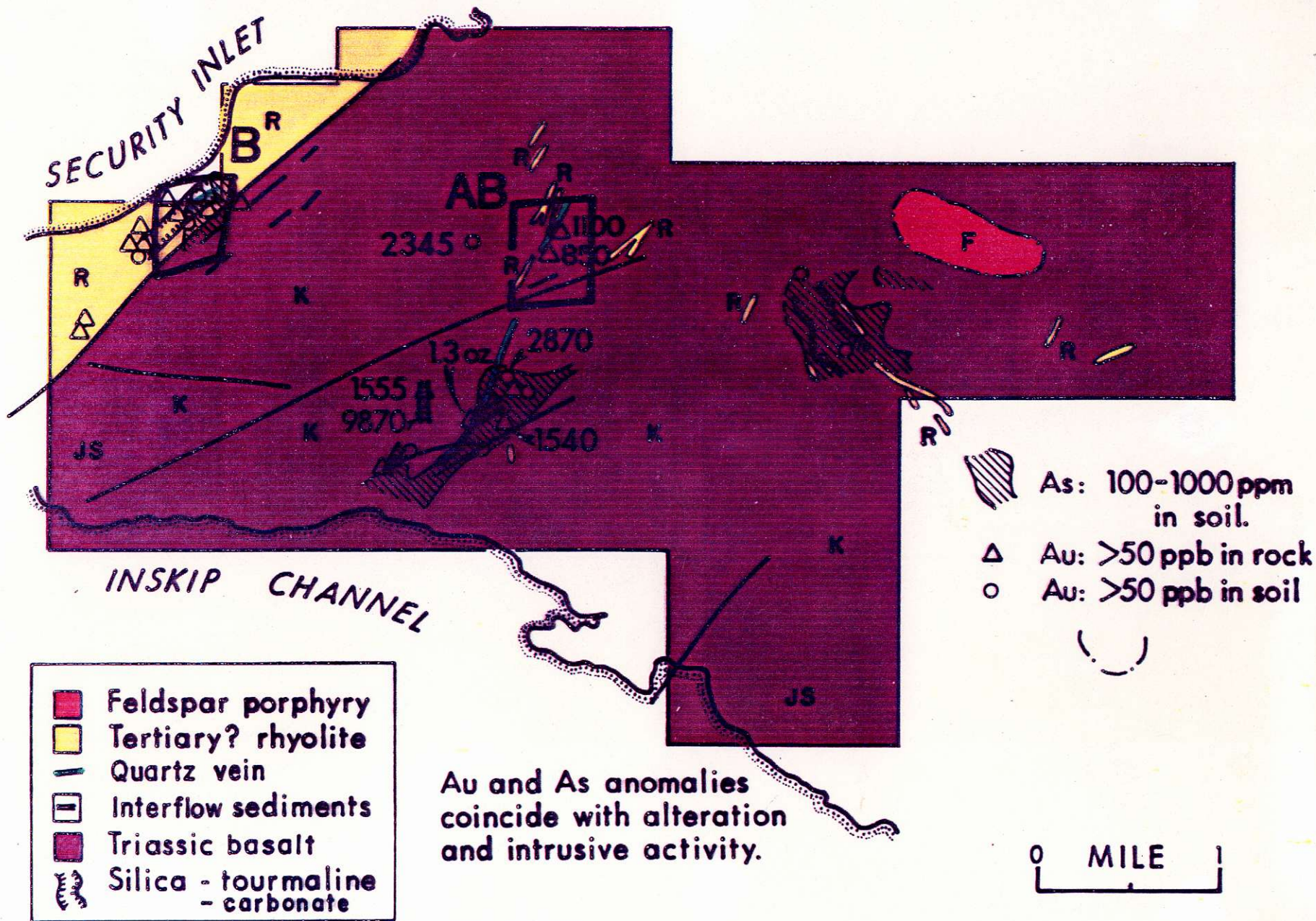


FIGURE No. 2


DETAILED AREA AB

LEGEND


-  QUARTZ VEIN
-  TERTIARY RHYOLITE
-  FELDSPAR PORPHYRY
-  TRIASSIC PILLOW-MASSIVE BASALT

$\Delta_{.31/1}$ ROCK SAMPLE-
CHANNEL oz/ton
OVER 1 meter

Δ_{500} ROCK SAMPLE ppb

 FAULT

 DRILL

0 120 
m

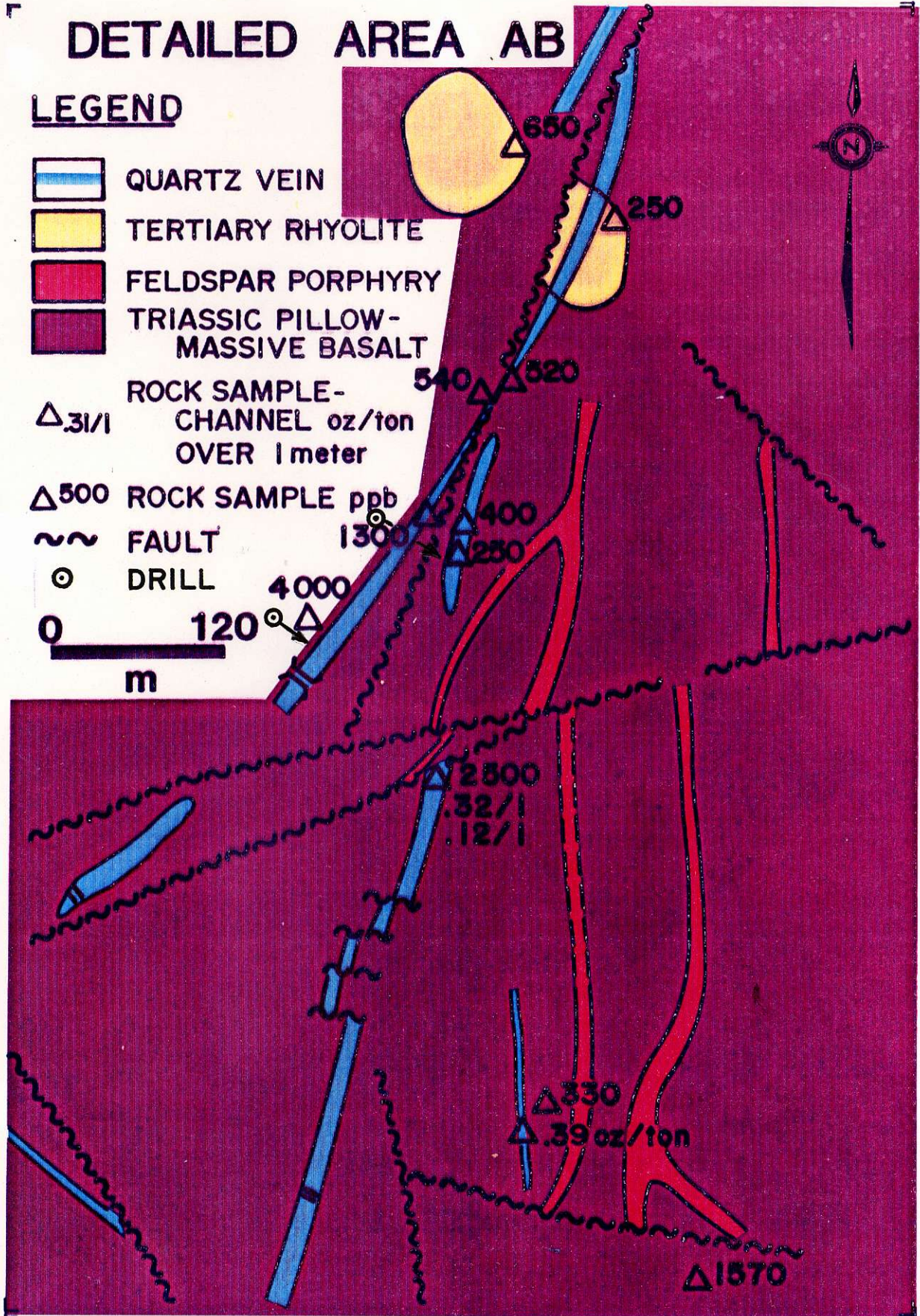


FIGURE No. 3

SECURITY

DETAILED AREA B

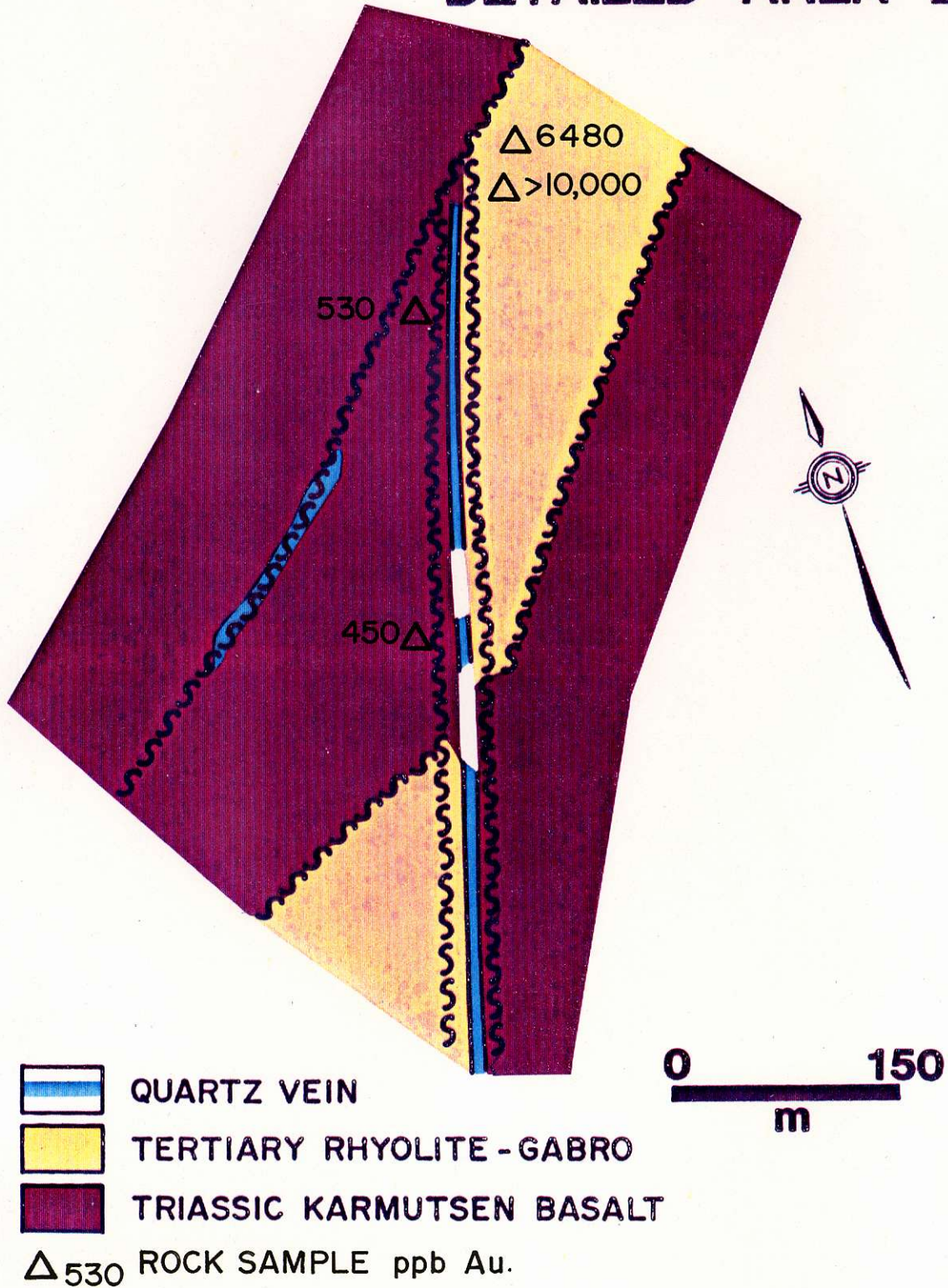


FIGURE No.4

KING

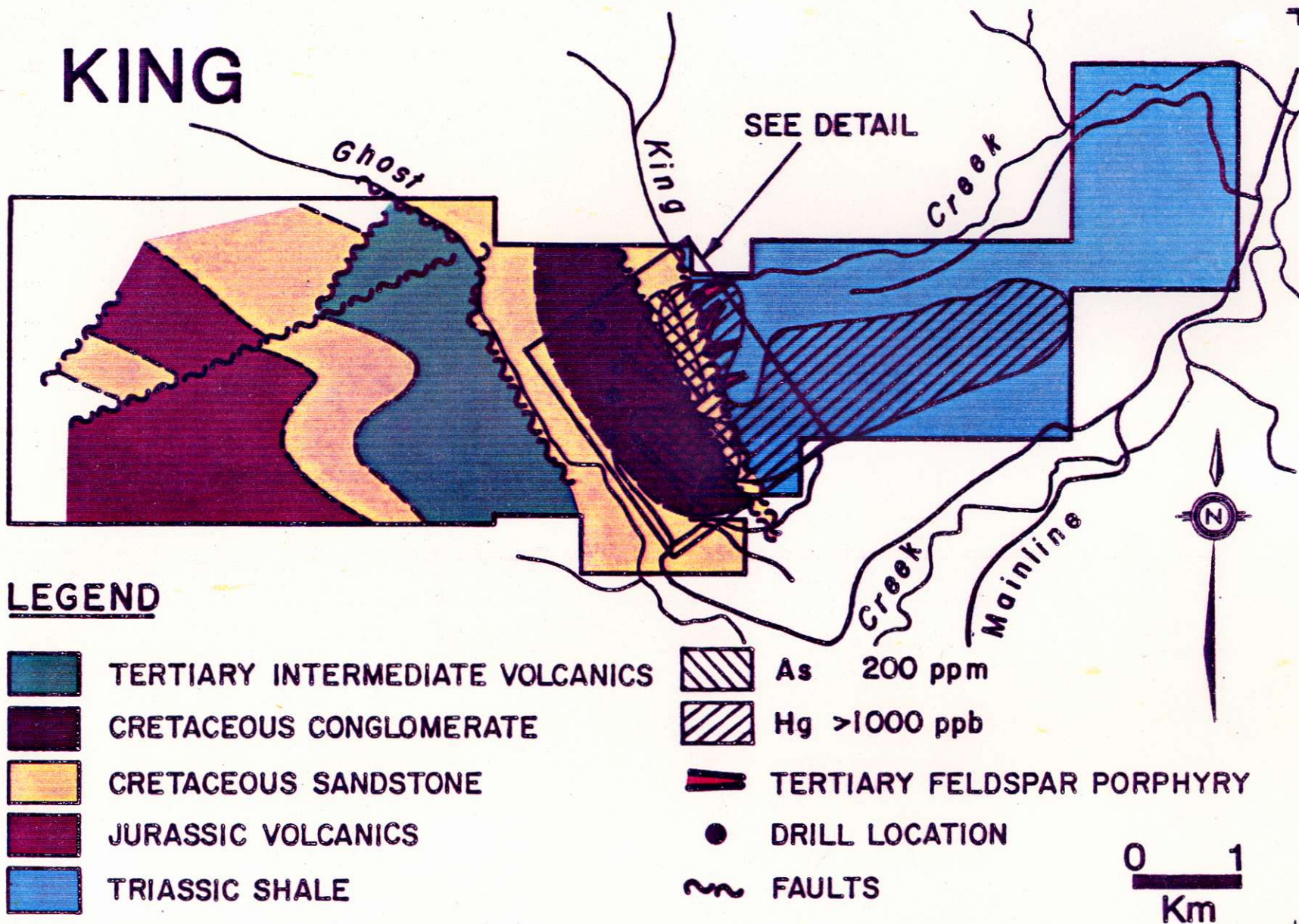
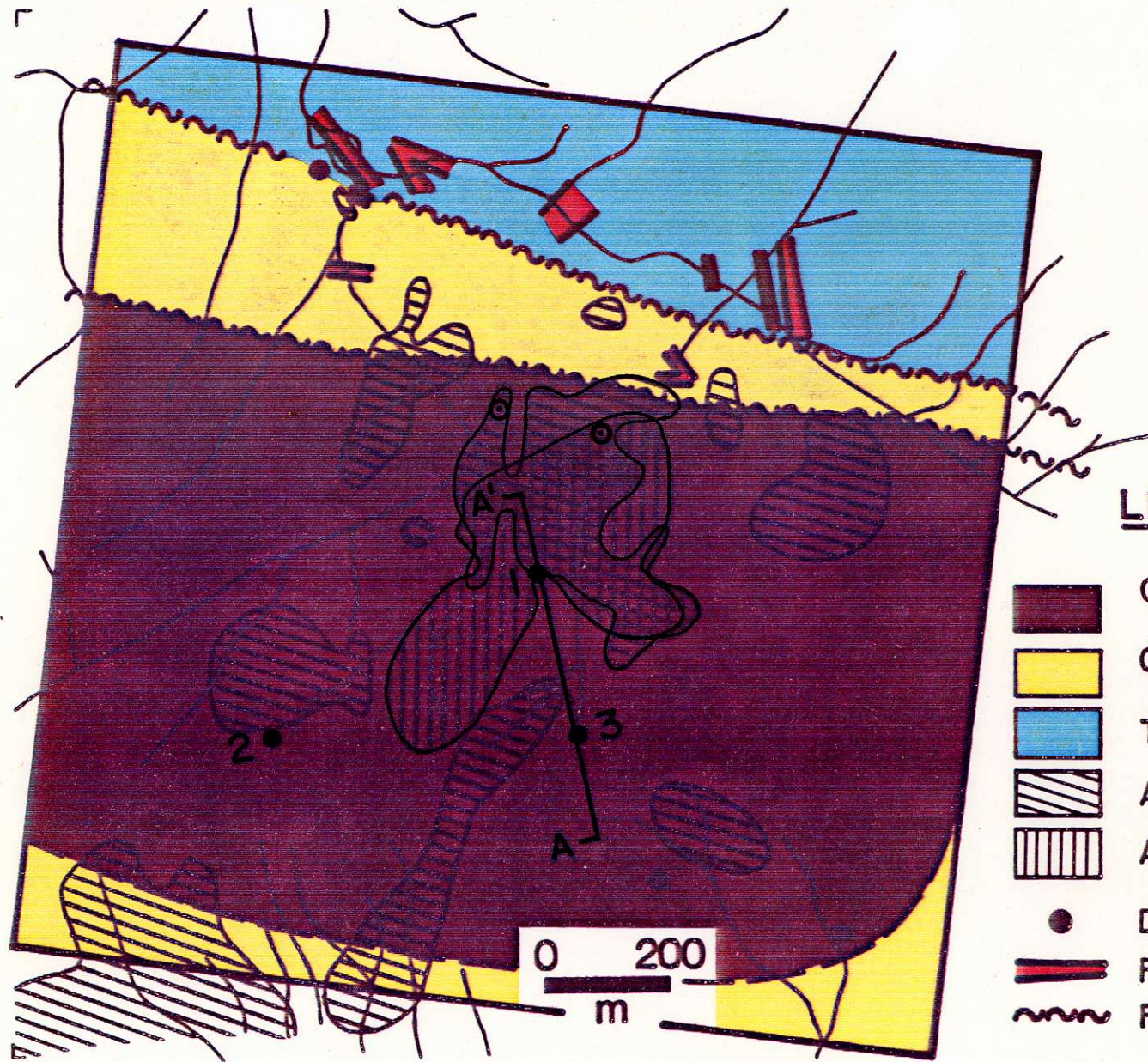


FIGURE No.5

KING



LEGEND

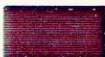







-  CRETACEOUS CONGLOMERATE
-  CRETACEOUS SANDSTONE
-  TRIASSIC SHALE
-  As-SOIL >200 ppm
-  As-ROCK >1000 ppm
-  DRILL LOCATION
-  FELDSPAR PORPHYRY
-  FAULT

FIGURE No.6

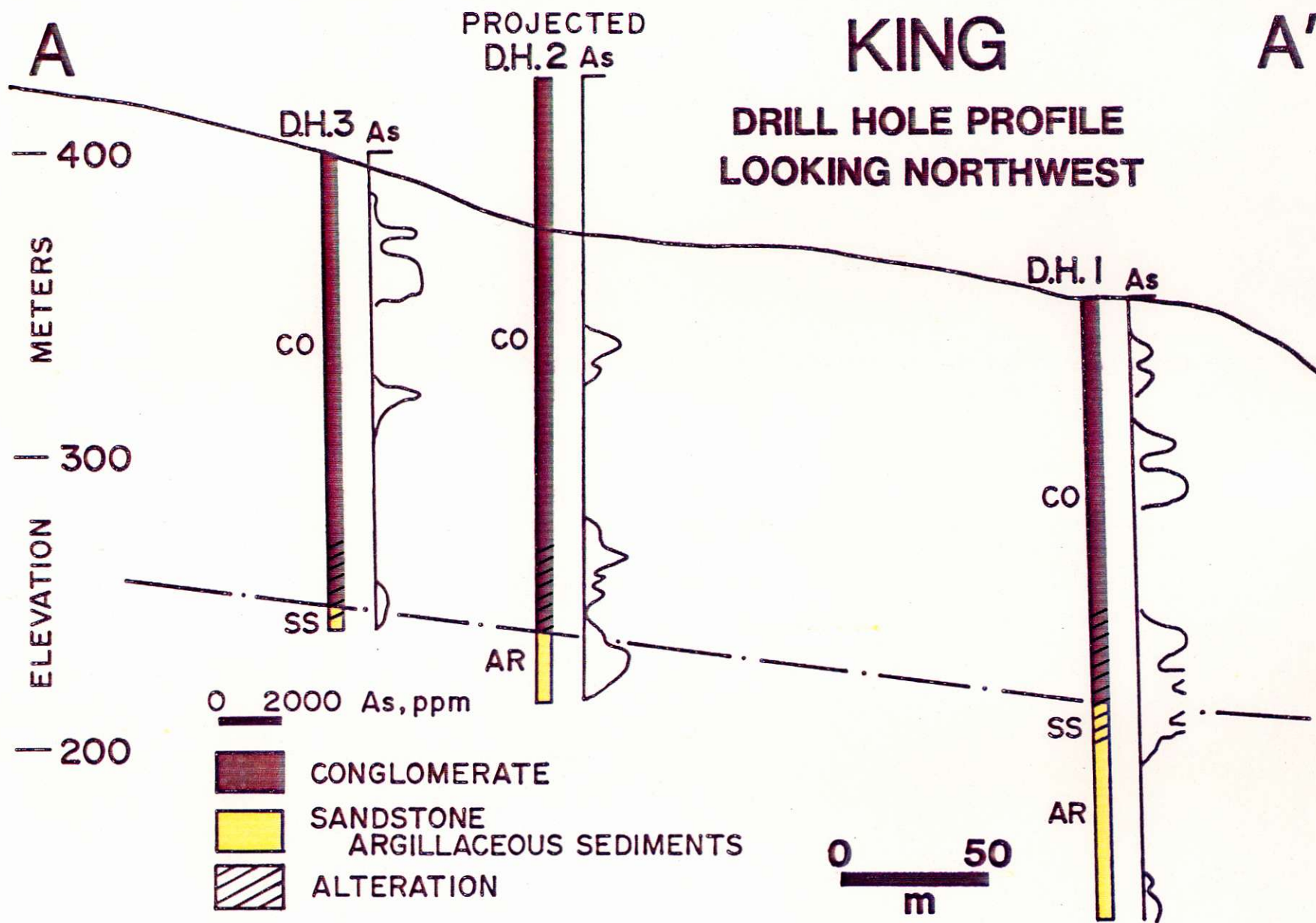


FIGURE No.7

Memorandum

Vancouver, B. C.
1982-12-09

Re: Security Project - M486

EARL D. DODSON:

The Security property is located 35 kilometers west of Sandspit on the Queen Charlotte Islands (Fig. 1). The property was obtained from JMT Services in 1979 and is currently held in the name of Chevron Canada Limited. The property was optioned because of some significant rock and soil geochemistry in proximity to the rhyolites.

Chevron has evaluated the property by geological mapping and prospecting (at a scale of 1:5000 and 1:1000), geochemical analysis of rocks and soils for arsenic, antimony and gold, and diamond drilling.

The claim group (Fig. 2) is underlain primarily by Triassic Karmutsen pillow, massive and amygdaloidal basaltic flows with minor Triassic sediments. This succession is cut by Tertiary quartz-feldspar porphyry dykes, a dacite intrusive, and a gabbro stock. It is overlain by some Tertiary rhyolite flows. This whole package has been dissected by numerous faults, along which two major quartz veins and some minor quartz veining have been placed.

Soil sampling has shown little encouragement despite the many high gold values obtained in the rocks. The best gold values were obtained from rocks that were associated with the quartz veining. The chances of locating a bulk tonnage gold deposit were reduced early this year when no true silicification was found on the property. Two zones (AB and B zones) contained the majority of the gold values and in both cases the veins which contained ore grade values were large enough to host significant sized deposits.

On the AB zone (Fig. 3) the quartz vein was 1-10 metres in width and had a strike length of 1000 metres. Although the gold values were sporadic along the length of the vein they were ore grade (e.g. 0.444 oz/ton Au over 1 metre, 0.39 oz/ton Au, 0.4 oz/ton Au, 0.15 oz/ton over 2 meters) in small areas. The vein in this case cut pillow basalts.

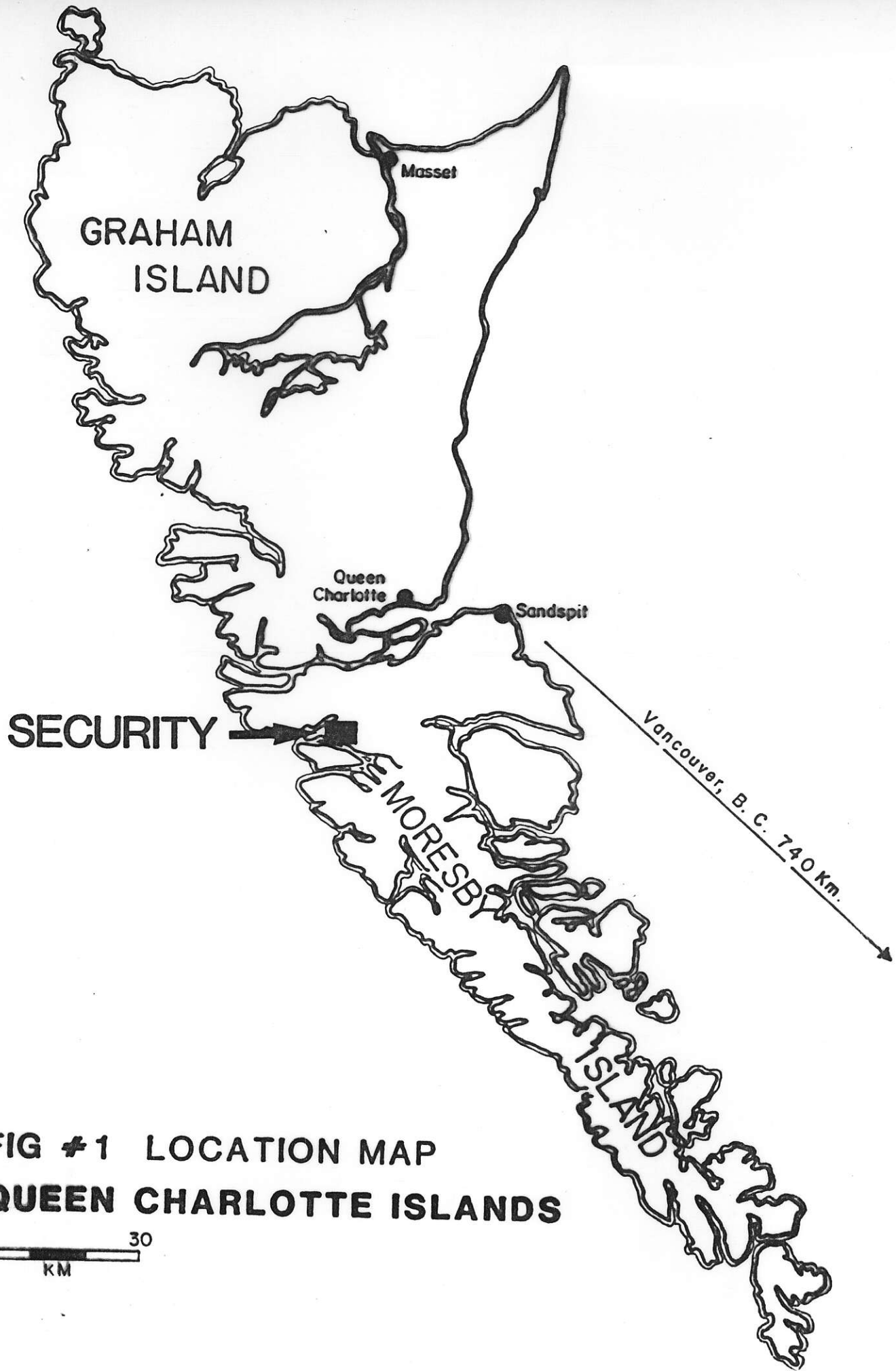
On the B zone (Fig. 4) the quartz was 10 metres in width and had a strike length of 800 metres. The high gold values were more consistently anomalous (values to 1.65 oz/ton Au, 0.2 oz/ton Au). The vein in this case cuts rhyolite, gabbro and basalt.

Both zones were drilled and the veins were intersected but only geochemically anomalous gold values were obtained. The best drill section (Fig. 5) was from the B zone where one vein zone was intersected and one sample ran 6200 ppb Au over 1 metre. The conclusion from this work is that there was surface enrichment of gold.

I, therefore, recommend that Chevron return the property to JMT Services. Our expenditures to date are \$480,000. U.S.

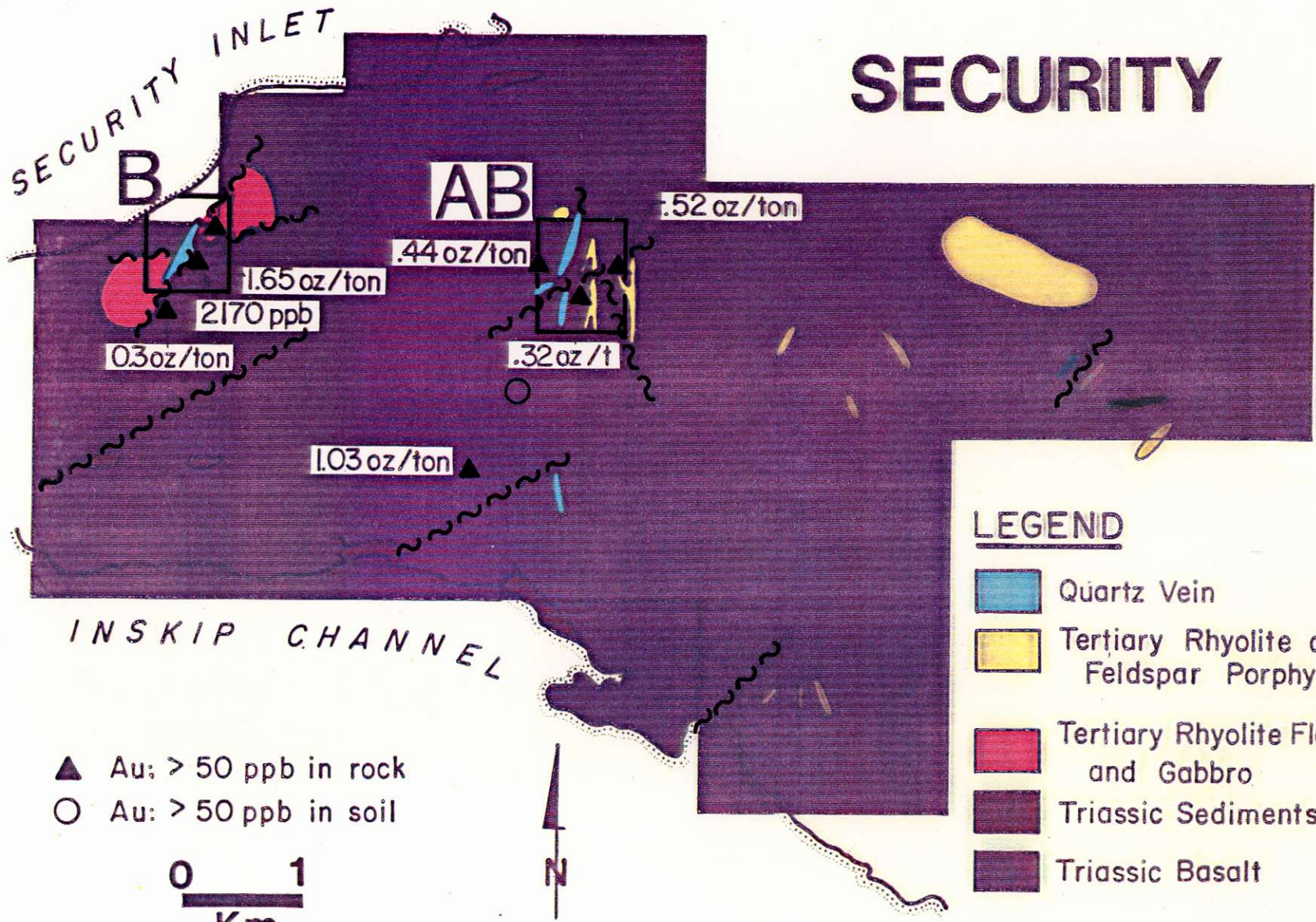
Godfrey Walton
G. WALTON

GW:am
Attachs.



**FIG # 1 LOCATION MAP
QUEEN CHARLOTTE ISLANDS**

SECURITY

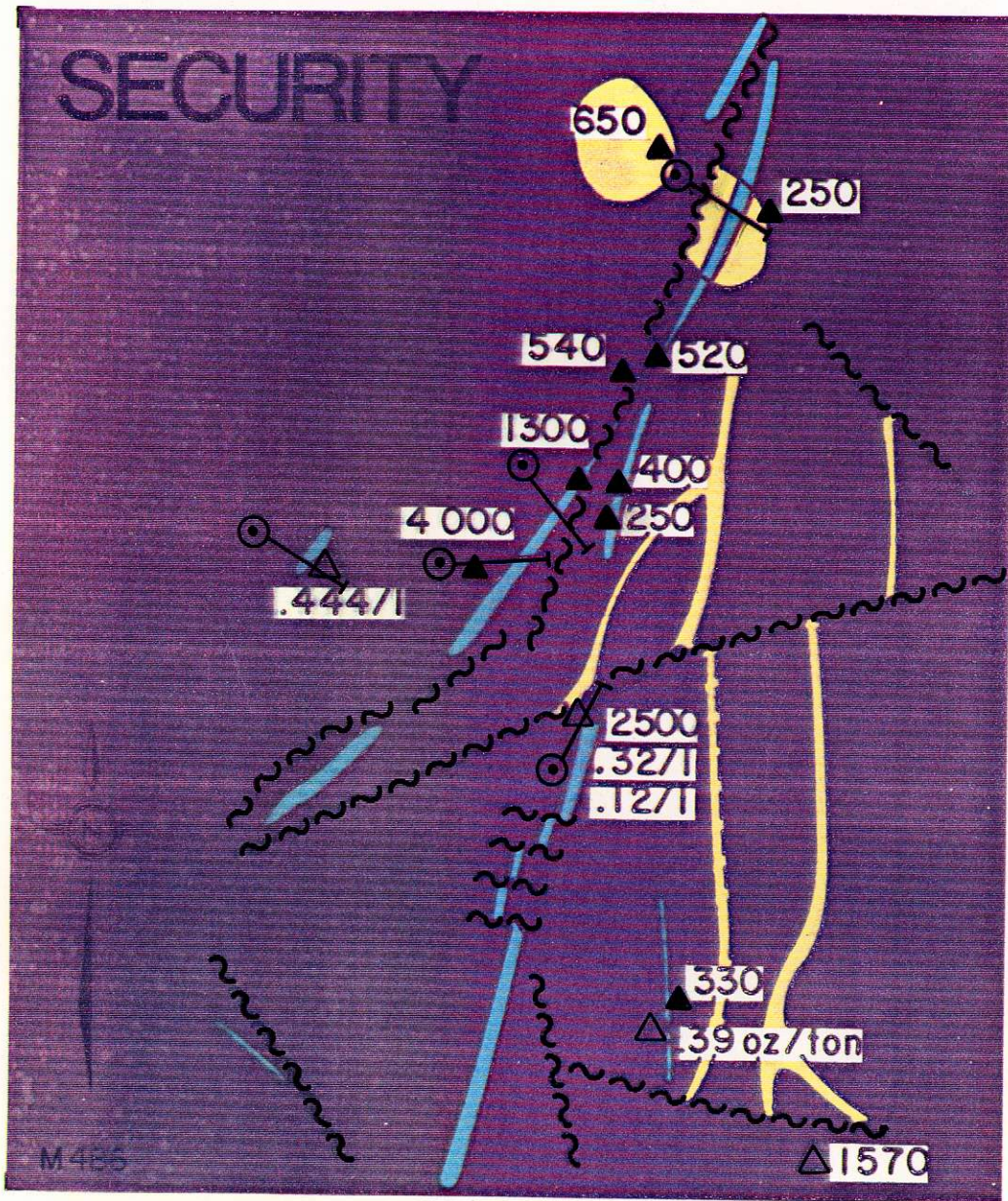


- ▲ Au: > 50 ppb in rock
- Au: > 50 ppb in soil



SECURITY

DETAILED AB ZONE



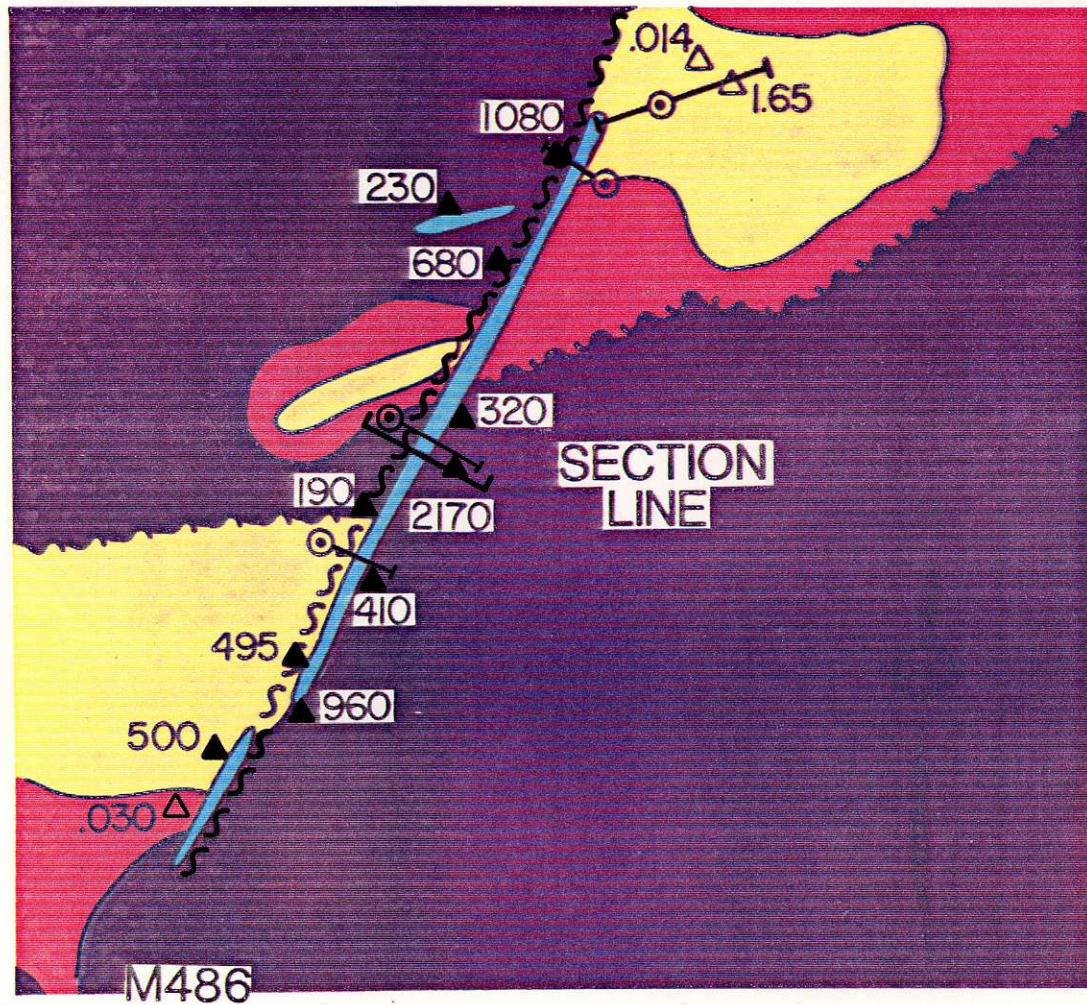
LEGEND

- QUARTZ VEIN
 - TERTIARY RHYOLITE AND FELDSPAR PORPHYRY
 - TRIASSIC PILLOW-MASSIVE BASALT
 - ROCK SAMPLE - CHANNEL oz/ton OVER 1 meter
 - ROCK SAMPLE ppb
 - FAULT
 - DRILL HOLE
- 0 120
m





M 485


SECURITY

DETAILED B ZONE



LEGEND

-  QUARTZ VEIN
-  TERTIARY GABBRO
-  TERTIARY RHYOLITE
-  TRIASSIC MASSIVE BASALT

 $\Delta_{.31/1}$ ROCK SAMPLE CHANNEL
Au oz/ton over 1meter

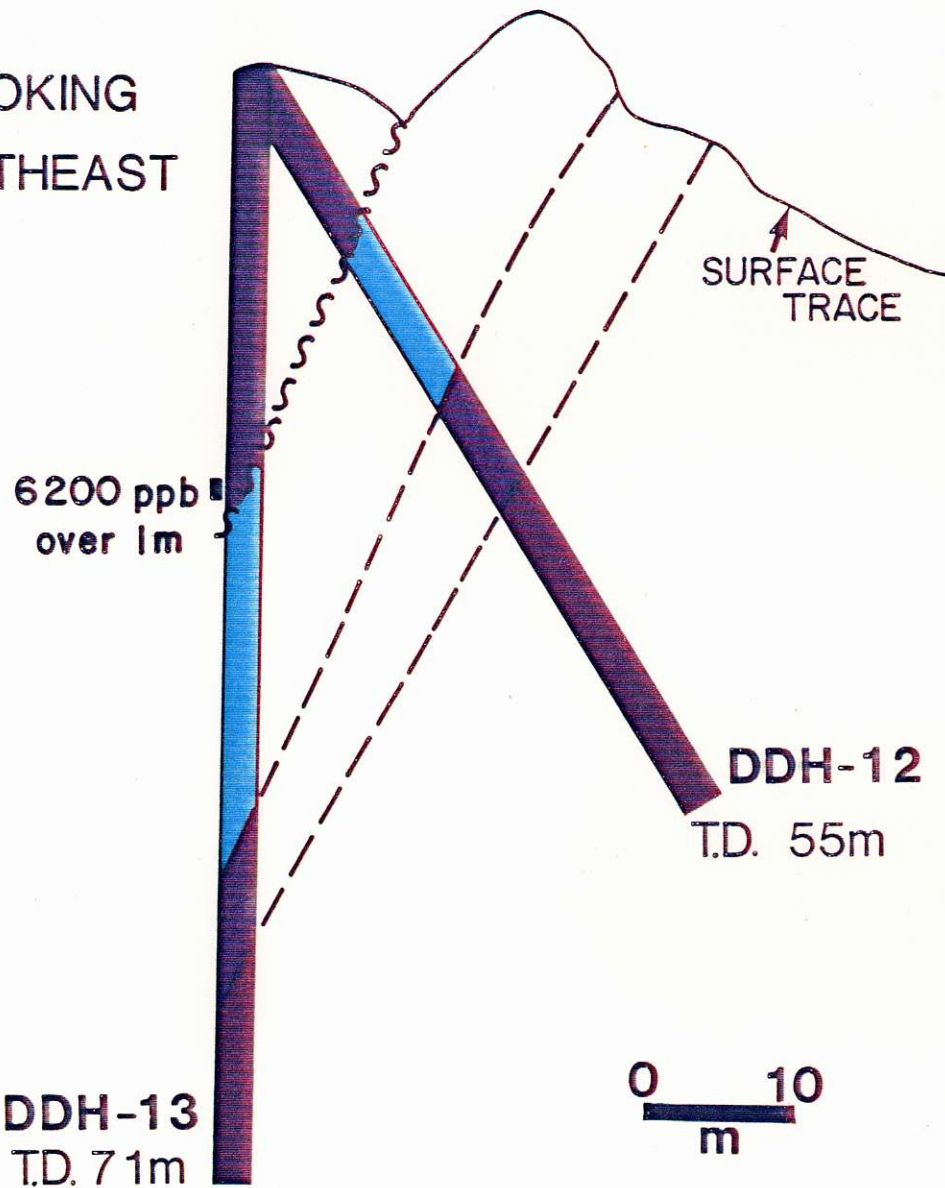
 500 ROCK SAMPLE Au-ppb

 FAULT

 DRILL HOLE

0 200
m



LOOKING
NORTHEAST



SECURITY

DRILL SECTION B ZONE

LEGEND

-  QUARTZ VEIN
-  TRIASSIC SEDIMENTS
-  TRIASSIC BASALT
-  CONTACT
-  FAULT

M486